UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,594	02/10/2004	Yao-Ching Stephen Chen	SVL920030104US1	1108

45727   7590   11/20/2007

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EXAMINER
RADTKE, MARK A

ART UNIT	PAPER NUMBER
2165	

MAIL DATE	DELIVERY MODE
11/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>30 October 2007</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>30-44</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>30-44</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

    1.☐ Certified copies of the priority documents have been received.

    2.☐ Certified copies of the priority documents have been received in Application No. _____.

    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>20071030</u>.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Remarks

1.   In response to communications filed on 30 October 2007, claim(s) 1-29 is/are

cancelled and new claim(s) 30-44 is/are added per Applicant's request. Therefore,

claims 30-44 are presently pending in the application, of which, claim(s) 30, 36 and 40

is/are presented in independent form.

2.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 18

October 2007 has been entered.

3.   The IDS filed 30 October 2007 has been considered by the Examiner.

Claim Objections

4.   Claims 33 and 43 are objected to because of the following informalities:

a.   At line 1, "wherein said" is repeated twice which is a grammatical error.

One of the "wherein said" phrases should be deleted so that the claim reads

properly.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

6.   Claims 30-31, 36 and 40-41 are rejected under 35 U.S.C. 112, second

paragraph, as being indefinite for failing to particularly point out and distinctly claim the

subject matter which applicant regards as the invention. The claims recite the limitation

"step iii" and "step iv" in, e.g., page 3, line 1. There is insufficient antecedent basis for

these limitations in the claims. The steps of the claims are not numbered so it is

impossible to ascertain which steps are repeated. Furthermore, the use of bullet points

to delineate limitations does not conform to standard practice. It is recommended that

the bullet points be removed.

Claim Rejections - 35 USC § 102

7.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed
> publication in this or a foreign country, before the invention thereof by the applicant for a patent.

8.   Claims 30-44 are rejected under 35 U.S.C. 102(a) as being anticipated by Franz,

"An Efficient XML Schema Typing System", November 18, 2003, cited previously.

As to claim 30, <u>Franz</u> teaches a computer-based method for validating a

fragment of a structured document, said computer-based method implemented in

computer readable program code, said computer readable program code stored in

computer memory (see Abstract), said computer-based method comprising steps of:

receiving as input a fragment of a structured document into a runtime validation

engine (see Abstract);

outputting a validation pass message as follows:

obtaining a first token from said fragment of said structured document (see

see page 12, pseudocode, line 6, "token <- tokenize(ai)"),

determining whether said first token is of element type said fragment of

said structured document that is to be validated against, and if so (see page 12,

pseudocode, line 7 and see also pages 10-11, spanning sentence),

obtaining next token from said fragment of said structured document (see

page 12, pseudocode, lines 9-10, "ty <- typing(tc:x, ai)", etc.),

checking whether said next token signifies end of said fragment of said

structured document (see page 12, pseudocode, lines 24-25, "if FSA(tc:x)

reaches" etc.), and if so, returning a validation pass if an annotated automaton

encoding (AAE) stack is empty (see page 12, pseudocode, lines 27-28, "if(stack

= {})", etc.); and

if said next token does not signify end of said fragment of said structured

document, continuing validation as in validating an entire structured document,

and when successfully validated as in an entire structured document, returning to

step iii until end of said structured document token is received and outputting a

validation pass when AAE stack is empty (See page 12, pseudocode, lines 4-26.

The do...while loop will execute the code from lines 5 and 25 until XML_stream

does not contain a terminal character (i.e., until the end of file is reached)).

As to claims 31 and 41, Franz teaches wherein, when first token is not of said

element type, or when said continued validation as in validating an entire document fails

in step iv or when said AAE stack is not empty, said method returns a validation failure

message (see page 12, pseudocode, lines 16, 22 and 29).

As to claims 32 and 42, Franz teaches wherein said structured document is an

XML document (see Abstract).

As to claims 33, 37 and 43, Franz teaches wherein said wherein said first or next

token is either an element type or an attribute type (see page 4, especially figure 1).

As to claims 34, 38 and 44, Franz teaches wherein said first or next token is a

lexeme, said lexeme being any of the following: a start tag name, an attribute name, or

an end tag name (see page 3, section 1.1, paragraph 2).

As to claims 35 and 39, <u>Franz</u> teaches wherein said computer-based method is implemented in conjunction with a database (see page 2, section 1, paragraph 4, "Basic validation ... *XML database system*").

As to claim 36, <u>Franz</u> teaches a computer-based method for validating a fragment of a structured document, said computer-based method implemented in computer readable program code, said computer readable program code stored in computer memory (see Abstract), said computer-based method comprising steps of:

For the remaining steps of this claim applicant(s) is/are directed to the remarks and discussions made in claims 31 and 32 above.

As to claim 40, <u>Franz</u> teaches an article of manufacture comprising a computer usable medium having computer readable program code embodied therein which implements a computer-based method for validating a fragment of a structured document, said computer-based method implemented in computer readable program code, said computer readable program code stored in computer memory (see Abstract), said computer usable medium comprising:

For the remaining steps of this claim applicant(s) is/are directed to the remarks and discussions made in claim 30 above.

Response to Arguments

9.   Applicant's arguments filed on 18 October 2007 with respect to the rejected

claims in view of the cited references have been fully considered but are moot in view of

the new grounds for rejection.

Additional References

10.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

The following patents are cited to further show the state of art with respect to

XML validation in general:

Doc. No.	Assigned to
US 4864502 A	Kucera; Henry et al.
US 6353896 B1	Holzmann; Gerard Johan et al.
US 7165216 B2	Chidlovskii; Boris et al.
US 20040073870 A1	Fuh, You-Chin et al.
US 6966027 B1	Krasinski; Raymond J.
US 7055093 B2	Tozawa; Akihiko et al.
US 20030154444 A1	Tozawa, Akihiko et al.
US 20050060645 A1	Raghavachari, Mukund et al.

"Extending Tree Automata to Model XML Validation Under Element and Attribute

Constraints" by Bouchou et al.

Conclusion

11.   Any inquiry concerning this communication or earlier communications should be

directed to the examiner, Mark A. Radtke. The examiner's telephone number is (571)

272-7163, and the examiner can normally be reached between 9 AM and 5 PM,

Monday through Friday.

If attempts to contact the examiner are unsuccessful, the examiner's supervisor,

Jeffrey Gaffin, can be reached at (571) 272-4146.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to Customer Service at (800) 786-9199.

maxr
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16 November 2007

JEFFREY GAFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100